QP Code : 549602

(3 Hours) | Total Marks : 80

N.B. : (1) Question no. **1** is **compulsory**
     (2) Attempt **any three** questions from the remaining questions.
     (3) Total **four** questions need to be solved.

1. Answer any **four**   20
    (a) Compare slotted ALOHA and Pure ALOHA.
    (b) Explain selective repeat protocol.
    (c) Explain TCP timer
    (d) Compare Linux and windows operating system
    (e) Explain PSTN.

2. (a) What is OSI model? Give the functions and services of each layer.   10
    (b) Explain Guided Transmission media in detail.   10

3. (a) What are the different types of routing algorithms? Explain shortest path routing algorithm in detail?   10
    (b) Explain (i) IP address   (ii)   Subnet Mask   6
    (c) An IPV_4 Packet has arrived with the first "8 bits" as shown : 0100 0010. The receiver discards? Why?   4

4. (a) Draw and explain TCP segment heade.   10
    (b) Explain TCP Congestion Control.   10

5. (a) What is HDLC? Explain the frame formats of I-frame, U- frame and S-Frame?   10
    (b) Compare Connetionless and connection oriented services.   5
    (c) Explain Traditional Ethernet   5

6. Write short notes on following (any **four**)   20
    (i) Compare LAN, MAN, WAN
    (ii) BGP
    (iii) Explain CRC with example
    (iv) CDMA/CA
    (v) Bridges, Router, Switches.